EXPERIMENTAL CELL RESEARCH

VOLUME 97 · 1976

EXPERIMENTAL CELL RESEARCH

EXECUTIVE EDITORS
T. CASPERSSON · T. GUSTAFSON · D. MAZIA · N. R. RINGERTZ

ADMINISTRATIVE EDITOR
VERA RUNNSTRÖM-REIO

EDITORIAL OFFICE
KAROLINSKA INSTITUTET, S-104 01 STOCKHOLM 60, SWEDEN

EDITORS
M. ABERCROMBIE · W. BERNHARD · J. BRACHET
O. I. EPIFANOVA · G. FOLEY · W. W. FRANKE · G. KLEIN · A. MOSCONA
J. PAUL · F. RUDDLE · E. ZEUTHEN

VOLUME 97 · 1976

ACADEMIC PRESS, New York and London
A Subsidiary of Harcourt Brace Jovanovich, Publishers

COPYRIGHT, © 1976, BY ACADEMIC PRESS INC.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner

Printed in Sweden by

Almqvist & Wiksell, Uppsala 1976

TABLE OF CONTENTS

NUMBER 1, JANUARY 1976

Ravid, A & Novogrodsky, A, Kinetics of the induction of DNA synthesis in lymphocytes by periodate 1

Edström, A, Kanje, M & Walum, E, Density-dependent inhibition of 2-deoxy-D-glucose uptake into glioma and neuroblastoma cells in culture 6

Walum, E & Edström, A, Kinetics of 2-deoxy-D-glucose transport into cultured mouse neuroblastoma cells 15

Jullien, M & Harel, L, Stimulation by serum of the phosphorylation reactions in density-inhibited 3T3 cells 23

Dadoune, J P, Protein turnover in striated muscle as visualized by radioautography after [^{3}H]-leucine administration 31

Ginns, E & Guarnieri, M, Trypsin bound to Sephadex beads. A tool for neuronal cell dissociation 42

Sinet, P-M, Couturier, J, Dutrillaux, B, Poissonnier, M, Raoul, O, Rethoré, M-O, Allard, D, Lejeune, J & Jerome, H, Trisomie 21 et superoxyde dismutase-1 (IPO-A). Tentative de localisation sur la sous bande 21 q 22.1 47

Vitto, A & Wallace, R A, Maturation of *Xenopus* oocytes. I. Facilitation by ouabain 56

Harris, P, Structural effects of mercaptoethanol during mitotic block of sea urchin eggs 63

Sparvoli, E, Galli, M G, Mosca, A & Paris, G, Localization of DNA replicator sites near the nuclear membrane in plant cells 74

Satir, B, Sale, W S & Satir, P, Membrane renewal after dibucaine deciliation of *Tetrahymena*. Freeze-fracture technique, cilia, membrane structure 83

Hovi, T, Allison, A C & Williams, S C, Proliferation of human peripheral blood lymphocytes induced by A23187, a streptomyces antibiotic 92

Woodcock, C L F, Safer, J P & Stanchfield, J E, Structural repeating units in chromatin. I. Evidence for their general occurrence 101

Woodcock, C L F, Sweetman, H E & Frado, L-L, Structural repeating units in chromatin. II. Their isolation and partial characterization 111

Kamely, D & Rudland, P S, Induction of DNA synthesis and cell division in human diploid skin fibroblasts by fibroblast growth factor 120

Illmensee, K & Mahowald, A P, The autonomous function of germ plasm in a somatic region of the *Drosophila* egg 127

Wise, G E & Larsen, R, Ultrastructural evidence of maintenance of concanavalin A binding sites in enucleated mammalian cells 141

Allen, W R & Wilt, F H, The amount of nuclear protein synthesis in sea urchin blastulae 151

Penn, A, Lake, S, Timourian, H & Gledhill, B L, Division delay in sea urchin embryos induced by a specific protease inhibitor 164

Brahma, S K & v.d. Starre, H, Studies on biosynthesis of soluble lens crystallin antigens in the chick by isoelectric focusing in thin-layer polyacrylamide gel 175

Skehan, P, On the regulation of cell growth in culture 184

Aalto, M, Potila, M & Kulonen, E, The effect of silica-treated macrophages on the synthesis of collagen and other proteins in vitro 193

Hervás, J-P, Multinucleate plant cells. I. Aneuploidy in a proliferating population 203

O'Neill, J P, Schröder, C H, Riddle, J C & Hsie, A W, The cell cycle specificity of the morphological conversion of Chinese hamster ovary cells by N^6,$O^{2'}$-dibutyryl cyclic adenosine 3′,5′-monophosphate 213

NUMBER 2, FEBRUARY 1976

Jung-Testas, I, Desmond, W & Baulieu, E-E, Two sex steroid receptors in SC-115 mammary tumour cells 219

Blomgren, H & Andersson, B, Steroid sensitivity of the PHA and PWM responses of fractionated human lymphocytes in vitro 233

Bragina, E E, Vasiliev, J M & Gelfand, I M, Formation of bundles of microfilaments during spreading of fibroblasts on the substrate 241

Gani, R, The nucleoli of cultured human lymphocytes. I. Nucleolar morphology in relation to transformation and the DNA cycle 249

Sopina, V A, The role of the nucleus and cytoplasm in the inheritance of multiplication rates in *Amoeba proteus* cultured at different temperatures 259

Grinnell, F, The serum dependence of baby hamster kidney cell attachment to a substratum 265

Bhuyan, B K, Loughman, B E, Fraser, T J & Day, K J, Comparison of different methods of determining cell viability after exposure to cytotoxic compounds 275

Johnson, G S & Schwartz, J P, Effects of sugars on the physiology of cultured fibroblasts 281

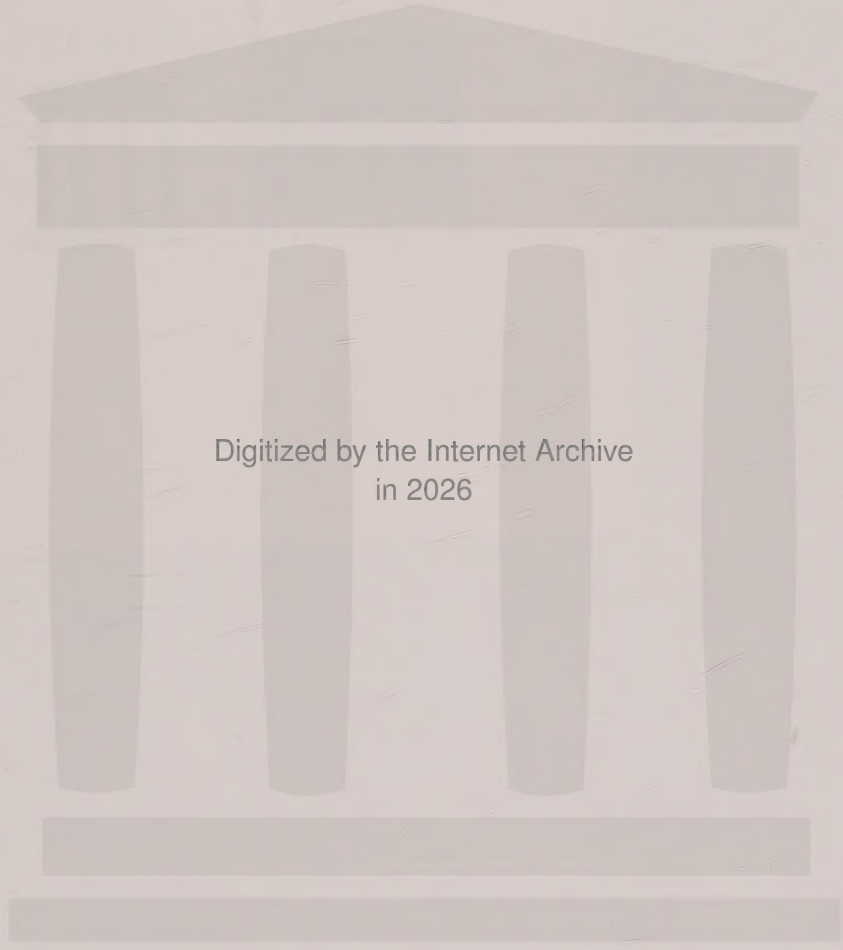
Brown, W T, Epstein, J & Little, J B, Progeria cells are stimulated to repair DNA by cocultivation with normal cells 291

Matsukuma, S & Utakoji, T, Uneven extraction of protein in Chinese hamster chromosomes during G-staining procedures 297

Heukels-Dully, M J & Niermeijer, M F, Variation in lysosomal enzyme activity during growth in culture of human fibroblasts and amniotic fluid cells 304
Dutrillaux, B, Aurias, A & Fosse, A M, Différenciation des mécanismes induisant la segmentation et l'asymétrie des chromatides, après traitement par le 5-bromodéoxy-uridine 313
Shimizu, S & Yamada, K, Distribution and nature of saccharides of plasma membranes of rat ascites hepatoma cells as detected by ferritin-conjugated lectins and dialyzed iron 322
Albrecht-Buehler & Goldman, R D, Microspike-mediated particle transport towards the cell body during early spreading of 3T3 cells 329
Pellegrino, M A, Ferrone, S, Brautbar, C & Hayflick, L, Changes in HL-A antigen profiles on SV40-transformed human fibroblasts 340
Sarasin, A & Moulé, Y, Helical polysomes induced by aflatoxin B_1 in vivo. A new hypothesis for helix formation by chemicals and carcinogens 346
O'Day, D H, Gwynne, D I & Blakey, D H, Microcyst germination in the cellular slime mold, *Polysphondylium pallidum*. Effects of actinomycin D and cycloheximide on macromolecular synthesis and enzyme accumulation 359
Karakashian, M W & Schweiger, H G, Circadian properties of the rhythmic system in individual nucleated and enucleated cells of *Acetabularia mediterranea* 366
McMaster-Kaye, R & Kaye, J S, Basic protein changes during the final stages of sperm maturation in the house cricket 378
Rubinstein, N, Chi, J & Holtzer, H, Coordinated synthesis and degradation of actin and myosin in a variety of myogenic and non-myogenic cells 387
Allewell, N M, Oles, J & Wolfe, J, A physicochemical analysis of conjugation in *Tetrahymena pyriformis* 394
Merlie, J P & Gros, F, In vitro myogenesis. Expression of muscle specific function in the absence of cell fusion 406
Kobayashi, I & Kimura, I, Effects of chemical animalization and cell dissociation on RNA synthesis in sea urchin embryos 413
Inglis, R J, Langan, T A, Matthews, H R, Hardie, D G & Bradbury, E M, Advance of mitosis by histone phosphokinase 418

PRELIMINARY NOTES

Zielke, H R, Hong, S-C & Littlefield, J W, Different timing of increases in activities of four X-chromosome linked enzymes during the cell cycle of synchronized human lymphoblasts 426
Lintern-Moore, S, Moore, G P M & Pantelouris, E M, Abnormal nucleolar growth in the oocytes of athymic "nude" mice. The result of gonadotropin insufficiency? 430
Weber, T H & Goldberg, M L, Effect of leukoagglutinating phytohemagglutinin on cAMP and cGMP levels in lymphocytes 432
Kuroiwa, T, Kawano, S & Hizume, M, A method of isolation of mitochondrial nucleoid of *Physarum polycephalum* and evidence for the presence of a basic protein 435
Bustin, M, Yamasaki, H, Goldblatt, D, Shani, M, Huberman, E & Sachs, L, Histone distribution in chromosomes revealed by antihistone sera 440
Reisner, Y, Lis, H & Sharon, N, On the importance of the binding of lectins to cell surface receptors at low lectin concentrations 445
de la Maza, L M, Mosharrafa, E & Yasmineh, W G, Effect of ultrasound on euchromatin and heterochromatin from normal and viral transformed mammalian cells 448
Miki-Noumura, T & Kamiya, R, Shape of microtubules in solutions 451
Vernadakis, A, Nidess, R, Timiras, M L & Schlesinger, R, Responsiveness of acetylcholinesterase and butyrylcholinesterase activities in neural cells to age and cell density in culture 453



Digitized by the Internet Archive
in 2026

https://archive.org/details/experimental-cell-research_1976_97_contents